CLAIMS

1. A high frequency dielectric ceramics composition constituted by combining a combination of $(Zn_{1-x}M_x)TiO_3$ and $yTiO_2$ as a main component, into which one of 0~5 wt % B_2O_3, 0~5 wt % H_3BO_3, 0~5 wt % SiO_2-K_2O glass, 0~5 wt % B_2O_3 and SiO_2-K_2O glass, or 0~5 wt % H_3BO_3 and SiO_2-K_2O glass is added as an additive, satisfies conditions of

M is Mg, Co or Ni,

'x' is $0 \le x \le 0.55$ in case of Mg and 'x' is $0 \le x \le 1.0$ in case of Co, and $0 \le x \le 1.0$ in case of Ni, and

$0 \le y \le 0.6$.

2. A high frequency dielectric ceramics composition preparation method in which material powder of ZnO, MO (in this respect, MO is MgO, CoO or NiO) and TiO_2 is weighed according to a composition range of $(Zn_{1-x}M_x)TiO_3$ and $yTiO_2$ (M is one of Mg, Co and Ni, x is $0 \le x \le 0.55$ in case of Mg, x is $0 \le x \le 1$ in case of Co, x is $0 \le x \le 1$ in case of Ni, and y is $0 \le y \le 0.6$), mixed and dried,

the dried powder is calcined at a temperature of 850~950°C,

the calcined powder is mixed with one of 0~5 wt % B_2O_3, 0~5 wt % H_3BO_3, 0~5 wt % SiO_2-K_2O glass, 0~5 wt % B_2O_3 and SiO_2-K_2O glass, or 0~5 wt % H_3BO_3 and SiO_2-K_2O glass as an additive,

the mixed powder is crushed,

the crushed power is shaped,

the shaped body is fired at a temperature of 800~925°C, and

$(Zn_{1-x}M_x)TiO_3$ is calcined at a temperature corresponding to a region (region II) of below a phase dissociation temperature as shown in Figure 1 to obtain $(Zn_{1-x}M_x)TiO_3$ (M is Mg, Co or Ni) of a single phase of rhombohedral/hexagonal crystal.

3. The method of claim 2, wherein the shaped body is made in a manner that an aqueous solution adding a PVA binder is sprayed onto the crushed powder to make a granule, to which a pressure is applied.

4. The method of claim 3, further comprises a step for maintaining the shaped body at a temperature of 300~500°C for a predetermined time and removing the binder.

5. The method of claim 2, wherein $(Zn_{1-x}M_x)TiO_3$ is first calcined, and the calcined $(Zn_{1-x}M_x)TiO_3$ is mixed with one of 0~5 wt % B_2O_3, 0~5 wt % H_3BO_3, 0~5 wt % SiO_2-K_2O glass, 0~5 wt % B_2O_3 and SiO_2-K_2O glass, or 0~5 wt % H_3BO_3 and SiO_2-K_2O glass as an additive, and then fired.

6. A high frequency dielectric ceramics composition constituted by combining a combination $(Zn_{1-a}Mg_{1-b}Co_{1-c}Ni_{1-d})TiO_3$ and $yTiO_2$ as a main component, into which one of 0~5 wt % B_2O_3, 0~5 wt % H_3BO_3, 0~5 wt % SiO_2-K_2O glass, 0~5 wt % B_2O_3 and SiO_2-K_2O glass, or 0~5 wt % H_3BO_3 and SiO_2-

K_2O glass is added as an additive, satisfies conditions of

$0 \leq a \leq 1$, $0 \leq b \leq 1$, $0 \leq c \leq 1$, $0 \leq d \leq 1$ and

$0 \leq y \leq 0.6$.

7. Various high frequency devices such as a multilayer chip capacitor, a multilayer chip filter, a multilayer chip capacitor/inductor composite device and a module, a low-temperature sintered substrate, a resonator and a filter or a ceramic antenna, are fabricated by using the dielectric composition of claim 1.